



EPA KEY CONTACTS FORM

OMB Number: 2030-0020
Expiration Date: 06/30/2024

Authorized Representative: *Original awards and amendments will be sent to this individual for review and acceptance, unless otherwise indicated.*

Name:	Prefix: Mr.	First Name: Jody	Middle Name:
	Last Name: Erwin		Suffix:
Title:	Public Health Deputy Director		
Complete Address:			
Street1:	645 Parfet St.		
Street2:			
City:	Lakewood	State:	CO: Colorado
Zip / Postal Code:	80215	Country:	USA: UNITED STATES
Phone Number:	303-271-5717	Fax Number:	303-271-5702
E-mail Address:	jerwin@co.jefferson.co.us		

Payee: *Individual authorized to accept payments.*

Name:	Prefix: Ms.	First Name: Salma	Middle Name:
	Last Name: Jakane		Suffix:
Title:	Senior Accounting Supervisor		
Complete Address:			
Street1:	645 Parfet St.		
Street2:			
City:	Lakewood	State:	CO: Colorado
Zip / Postal Code:	80215	Country:	USA: UNITED STATES
Phone Number:	303-271-5775	Fax Number:	303-271-5702
E-mail Address:	sjakane@co.jefferson.co.us		

Administrative Contact: *Individual from Sponsored Programs Office to contact concerning administrative matters (i.e., indirect cost rate computation, rebudgeting requests etc).*

Name:	Prefix: Ms.	First Name: Salma	Middle Name:
	Last Name: Jakane		Suffix:
Title:	Senior Accounting Supervisor		
Complete Address:			
Street1:	645 Parfet St.		
Street2:			
City:	Lakewood	State:	CO: Colorado
Zip / Postal Code:	80215	Country:	USA: UNITED STATES
Phone Number:	303-271-5775	Fax Number:	303-271-5702
E-mail Address:	sjakane@co.jefferson.co.us		

EPA KEY CONTACTS FORM

Project Manager: *Individual responsible for the technical completion of the proposed work.*

Name: **Prefix:** Mr. **First Name:** Trenton **Middle Name:**

Last Name: Mitchell **Suffix:**

Title: Senior Environmental Health Specialist

Complete Address:

Street1: 645 Parfet St.

Street2:

City: Lakewood

State: CO: Colorado

Zip / Postal Code: 80215

Country: USA: UNITED STATES

Phone Number: 303.239.7090

Fax Number: 303-271-5702

E-mail Address: tmitchell@co.jefferson.co.us

Other Attachment File(s)

* Mandatory Other Attachment Filename:

Add Mandatory Other Attachment

Delete Mandatory Other Attachment

View Mandatory Other Attachment

To add more "Other Attachment" attachments, please use the attachment buttons below.

Add Optional Other Attachment

Delete Optional Other Attachment

View Optional Other Attachment

Project Narrative File(s)

* **Mandatory Project Narrative File Filename:**

Add Mandatory Project Narrative File

Delete Mandatory Project Narrative File

View Mandatory Project Narrative File

To add more Project Narrative File attachments, please use the attachment buttons below.

Add Optional Project Narrative File

Delete Optional Project Narrative File

View Optional Project Narrative File

Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance

Note: Read Instructions before completing form.

I. A. Applicant/Recipient (Name, Address, City, State, Zip Code)

Name: Jody Erwin, Deputy Director, JCPH

Address: 645 Parfet St

City: Lakewood

State: CO: Colorado

Zip Code: 80215

B. DUNS No. 114874360

II. Is the applicant currently receiving EPA Assistance? ☐ Yes ☒ No

III. List all civil rights lawsuits and administrative complaints pending against the applicant/recipient that allege discrimination based on race, color, national origin, sex, age, or disability. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

None

IV. List all civil rights lawsuits and administrative complaints decided against the applicant/recipient within the last year that allege discrimination based on race, color, national origin, sex, age, or disability and enclose a copy of all decisions. Please describe all corrective actions taken. (Do not include employment complaints not covered by 40 C.F.R. Parts 5 and 7.)

None

V. List all civil rights compliance reviews of the applicant/recipient conducted by any agency within the last two years and enclose a copy of the review and any decisions, orders, or agreements based on the review. Please describe any corrective action taken. (40 C.F.R. § 7.80(c)(3))

None

VI. Is the applicant requesting EPA assistance for new construction? If no, proceed to VII; if yes, answer (a) and/or (b) below.

☐ Yes ☒ No

a. If the grant is for new construction, will all new facilities or alterations to existing facilities be designed and constructed to be readily accessible to and usable by persons with disabilities? If yes, proceed to VII; if no, proceed to VI(b).

☐ Yes ☐ No

b. If the grant is for new construction and the new facilities or alterations to existing facilities will not be readily accessible to and usable by persons with disabilities, explain how a regulatory exception (40 C.F.R. 7.70) applies.

VII. Does the applicant/recipient provide initial and continuing notice that it does not discriminate on the basis of race, color, national origin, sex, age, or disability in its program or activities? (40 C.F.R. 5.140 and 7.95)

☒ Yes ☐ No

a. Do the methods of notice accommodate those with impaired vision or hearing?

☒ Yes ☐ No

b. Is the notice posted in a prominent place in the applicant's offices or facilities or, for education programs and activities, in appropriate periodicals and other written communications?

☒ Yes ☐ No

c. Does the notice identify a designated civil rights coordinator?

☒ Yes ☐ No

VIII. Does the applicant/recipient maintain demographic data on the race, color, national origin, sex, age, or handicap of the population it serves? (40 C.F.R. 7.85(a))

☒ Yes ☐ No

IX. Does the applicant/recipient have a policy/procedure for providing access to services for persons with limited English proficiency? (40 C.F.R. Part 7, E.O. 13166)

☒ Yes ☐ No

- X. If the applicant is an education program or activity, or has 15 or more employees, has it designated an employee to coordinate its compliance with 40 C.F.R. Parts 5 and 7? Provide the name, title, position, mailing address, e-mail address, fax number, and telephone number of the designated coordinator.**

Yes
Stephanie Speer, Compliance Manager
Jefferson County Operations Department
100 Jefferson County Parkway
Golden, CO 80419
skspeer@co.jefferson.co.us
303-271-8439

- XI. If the applicant is an education program or activity, or has 15 or more employees, has it adopted grievance procedures that assure the prompt and fair resolution of complaints that allege a violation of 40 C.F.R. Parts 5 and 7? Provide a legal citation or Internet Address for, or a copy of, the procedures.**

Yes

For the Applicant/Recipient

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law. I assure that I will fully comply with all applicable civil rights statutes and EPA regulations.

A. Signature of Authorized Official

Nikki E Main

B. Title of Authorized Official

Public Health Deputy Director

C. Date

03/25/2022

For the U.S. Environmental Protection Agency

I have reviewed the information provided by the applicant/recipient and hereby certify that the applicant/recipient has submitted all preaward compliance information required by 40 C.F.R. Parts 5 and 7; that based on the information submitted, this application satisfies the preaward provisions of 40 C.F.R. Parts 5 and 7; and that the applicant has given assurance that it will fully comply with all applicable civil rights statutes and EPA regulations.

A. *Signature of Authorized EPA Official

B. Title of Authorized Official

C. Date

*** See Instructions**

Instructions for EPA FORM 4700-4 (Rev. 06/2014)

General. Recipients of Federal financial assistance from the U.S. Environmental Protection Agency must comply with the following statutes and regulations.

Title VI of the Civil Rights Acts of 1964 provides that no person in the United States shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. The Act goes on to explain that the statute shall not be construed to authorize action with respect to any employment practice of any employer, employment agency, or labor organization (except where the primary objective of the Federal financial assistance is to provide employment). Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act provides that no person in the United States shall on the ground of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under the Federal Water Pollution Control Act, as amended. Employment discrimination on the basis of sex is prohibited in all such programs or activities. Section 504 of the Rehabilitation Act of 1973 provides that no otherwise qualified individual with a disability in the United States shall solely by reason of disability be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. Employment discrimination on the basis of disability is prohibited in all such programs or activities. The Age Discrimination Act of 1975 provides that no person on the basis of age shall be excluded from participation under any program or activity receiving Federal financial assistance. Employment discrimination is not covered. Age discrimination in employment is prohibited by the Age Discrimination in Employment Act administered by the Equal Employment Opportunity Commission. Title IX of the Education Amendments of 1972 provides that no person in the United States on the basis of sex shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance. Employment discrimination on the basis of sex is prohibited in all such education programs or activities. Note: an education program or activity is not limited to only those conducted by a formal institution. 40 C.F.R. Part 5 implements Title IX of the Education Amendments of 1972. 40 C.F.R. Part 7 implements Title VI of the Civil Rights Act of 1964, Section 13 of the 1972 Amendments to the Federal Water Pollution Control Act, and Section 504 of The Rehabilitation Act of 1973. The Executive Order 13166 (E.O. 13166) entitled; "Improving Access to Services for Persons with Limited English Proficiency" requires Federal agencies work to ensure that recipients of Federal financial assistance provide meaningful access to their LEP applicants and beneficiaries.

Items "Applicant" means any entity that files an application or unsolicited proposal or otherwise requests EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Recipient" means any entity, other than applicant, which will actually receive EPA assistance. 40 C.F.R. §§ 5.105, 7.25. "Civil rights lawsuits and administrative complaints" means any lawsuit or administrative complaint alleging discrimination on the basis of race, color, national origin, sex, age, or disability pending or decided against the applicant and/or entity which actually benefits from the grant, but excluding employment complaints not covered by 40 C.F.R. Parts 5 and 7. For example, if a city is the named applicant but the grant will actually benefit the Department of Sewage, civil rights lawsuits involving both the city and the Department of Sewage should be listed. "Civil rights compliance review" means any review assessing the applicant's and/or recipient's compliance with laws prohibiting discrimination on the basis of race, color, national origin, sex, age, or disability. Submit this form with the original and required copies of applications, requests for extensions, requests for increase of funds, etc. Updates of information are all that are required after the initial application submission. If any item is not relevant to the project for which assistance is requested, write "NA" for "Not Applicable." In the event applicant is uncertain about how to answer any questions, EPA program officials should be contacted for clarification. * Note: Signature appears in the Approval Section of the EPA Comprehensive Administrative Review For Grants/Cooperative Agreements & Continuation/Supplemental Awards form.

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

03/25/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

84-6000774

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Jefferson County

* b. Employer/Taxpayer Identification Number (EIN/TIN):

84-6000774

* c. Organizational DUNS:

1148743600000

d. Address:

* Street1:

645 Parfet Street

Street2:

* City:

Lakewood

County/Parish:

Jefferson

* State:

CO: Colorado

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

80215-5506

e. Organizational Unit:

Department Name:

Public Health

Division Name:

Environmental Health Services

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

Ms.

* First Name:

Nikki

Middle Name:

Elyse

* Last Name:

Main

Suffix:

Title:

Grants Specialist

Organizational Affiliation:

Jefferson County Public Health

* Telephone Number:

303-239-7048

Fax Number:

303-271-5702

* Email:

nmain@co.jefferson.co.us

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

B: County Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Environmental Protection Agency

11. Catalog of Federal Domestic Assistance Number:

66.034

CFDA Title:

Surveys, Studies, Research, Investigations, Demonstrations, and Special Purpose Activities
Relating to the Clean Air Act

* 12. Funding Opportunity Number:

EPA-OAR-OAQPS-22-01

* Title:

Enhanced Air Quality Monitoring for Communities

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

1236-Location Effected by Project for Proje

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Jefferson County Love My Air Initiative

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:**

* a. Applicant

7th

* b. Program/Project

7th

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date:

11/01/2022

* b. End Date:

10/31/2025

18. Estimated Funding (\$):

* a. Federal	225,954.25
* b. Applicant	0.00
* c. State	0.00
* d. Local	0.00
* e. Other	0.00
* f. Program Income	0.00
* g. TOTAL	225,954.25

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.☒ c. Program is not covered by E.O. 12372.*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix:

Mr.

* First Name:

Jody

Middle Name:

* Last Name:

Erwin

Suffix:

* Title:

Public Health Deputy Director

* Telephone Number:

303-271-5717

Fax Number:

303-271-5702

* Email:

jerwin@co.jefferson.co.us

* Signature of Authorized Representative:

Nikki E Main

* Date Signed:

03/25/2022

BUDGET INFORMATION - Non-Construction Programs

OMB Number: 4040-0006
Expiration Date: 02/28/2022

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	Total (g)
1. Jefferson County Love My Air Initiative	66.034	\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="225,954.25"/>	\$ <input type="text"/>	\$ <input type="text" value="225,954.25"/>
2. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5. Totals		\$ <input type="text"/>	\$ <input type="text"/>	\$ <input type="text" value="225,954.25"/>	\$ <input type="text"/>	\$ <input type="text" value="225,954.25"/>

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 1

SECTION B - BUDGET CATEGORIES

6. Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY				Total (5)
	(1)	(2)	(3)	(4)	
	Jefferson County Love My Air Initiative				
a. Personnel	\$ 74,902.85	\$	\$	\$	\$ 74,902.85
b. Fringe Benefits	23,216.14				23,216.14
c. Travel	6,904.00				6,904.00
d. Equipment	0.00				0.00
e. Supplies	2,450.00				2,450.00
f. Contractual	29,480.00				29,480.00
g. Construction	0.00				0.00
h. Other	38,600.00				38,600.00
i. Total Direct Charges (sum of 6a-6h)	175,552.99				\$ 175,552.99
j. Indirect Charges	50,401.26				\$ 50,401.26
k. TOTALS (sum of 6i and 6j)	\$ 225,954.25	\$	\$	\$	\$ 225,954.25
7. Program Income	\$ 0.00	\$	\$	\$	\$ 0.00

Authorized for Local Reproduction

Standard Form 424A (Rev. 7-97)
Prescribed by OMB (Circular A -102) Page 1A

SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e)TOTALS
8. Jefferson County Love My Air Initiative	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
9.				
10.				
11.				
12. TOTAL (sum of lines 8-11)	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 81,164.46	\$ 23,466.07	\$ 18,965.55	\$ 21,117.56	\$ 17,615.28
14. Non-Federal	\$ 0.00	0.00	0.00	0.00	0.00
15. TOTAL (sum of lines 13 and 14)	\$ 81,164.46	\$ 23,466.07	\$ 18,965.55	\$ 21,117.56	\$ 17,615.28

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (YEARS)			
	(b)First	(c) Second	(d) Third	(e) Fourth
16. Jefferson County Love My Air Initiative	\$ 81,164.46	\$ 74,822.29	\$ 69,967.50	
17.				
18.				
19.				
20. TOTAL (sum of lines 16 - 19)	\$ 81,164.46	\$ 74,822.29	\$ 69,967.50	

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges: Provisional- \$175,552.99 x .2871 = \$50,401.26
23. Remarks: JCPH has an Indirect Cost Negotiation Agreement with Colorado Department of Public Health and Environment for 2022 in the amount of 28.71%	

Authorized for Local Reproduction

Standard Form 424A (Rev. 7- 97)
Prescribed by OMB (Circular A -102) Page 2

PART I. COVER PAGE**Project Title:** Jefferson County Love My Air Initiative**Applicant Information:** Jefferson County (Jefferson County Public Health)**Applicant Address:** 645 Parfet Street, Lakewood, CO 80215**Primary Contact:** Trenton Mitchell, Senior Environmental Health Specialist**Contact Phone #:** 303-239-7090; 720-422-8942**Contact E-Mail:** tmitchell@jeffco.us**Funding Requested:** \$225,954.25**Total Project Cost:** \$225,954.25**Project Period:** October 1, 2022 – September 30, 2025 **DUNS:** 114874360/**UEI:** VFEEA9EVXVK5**Set Aside:** No Set-Aside

Applicant Organization Description: Jefferson County Public Health (JCPH) is the local public health agency for Jefferson County, Colorado. Our nationally accredited department is comprised of over 200 employees who work to implement our mission: to promote and protect health for all people across the lifespan through prevention, education, treatment, response and regulation.

Project Partner(s): Denver Department of Public Health and Environment (DDPHE); Clarity Movement Company; Sensible IOT; Jefferson County Public Schools (JPS); City of Lakewood Sustainable Neighborhoods Program – Sustainable Eiber; Edgewater Collective (EC); Jefferson County Public Library

Project Locations: Jefferson County, Colorado, including, but not limited to: Arvada (80005) Edgewater (80214), Golden (80401), Lakewood (80215), Lakewood (80228), and Littleton (80123).

Air Pollutant Scope: Particle Pollution (PM2.5)**Budget Summary:**

EPA Funding Requested	Total Project Cost
\$225,954.25	\$225,954.25

Short Project Description:




Jefferson County Public Health is proposing to create local capacity for underserved communities in Jefferson County to monitor and address their own air quality. JCPH plans partner with Jefferson County Public Schools and other community-based organizations to replicate and expand on Denver Department of Public Health and Environment's highly successful Love My Air Program. This program will place low-cost, high-quality monitoring equipment at partner sites - providing real-time, particulate matter measurements on easy-to-understand, public facing dashboards. JCPH will support partner grassroots outreach and education efforts. Data will be shared with county and state organizations that provide environmental health advocacy, research and reporting to the community.

PART II: WORKPLAN**Section 1: Project Summary/Approach****A. Overall Project**

The goal of the Jefferson County Love My Air (JCLMA) Initiative is to empower underserved communities in Jefferson County, CO to monitor and address their own air quality by providing immediate and local air quality information and outreach tools to engage their communities. This project replicates and expands on the highly successful Denver Love My Air Program, a partnership between the Denver Department of Public Health and Environment (DDPHE) and Denver Public Schools (DPS). Denver's LMA program started in 2018 as a winning project of the Bloomberg Mayors Challenge. The program created a citywide air quality monitoring network to provide real-time air quality data utilizing low-cost, cutting-edge air pollution sensor technology redeveloped with solar power, battery storage and data connectivity. The program is a Denver Smart City project and has received state and national attention. The project was created with the intent to be replicable, and it has already been successfully replicated in Denver metro communities served by the Tri-County Health Department (TCHD). Replication toolkits are readily available, and DDPHE has expressed their intent to enter into a License for Trademark Use Agreement with JCPH to replicate this program. In addition to partnering with DDPHE and Jefferson County Public Schools (JPS), JCPH intends to expand the reach of the program by including other community-based organizations as partners, including sustainable neighborhood groups and public libraries. JCPH will form a Host Site Committee comprised of these organizations to ensure an inclusive and collaborative process and will provide community-wide trainings to the host site communities to increase their capacity to address air pollution locally.

JCPH aims to expand its participation in community monitoring advisory groups through collaboration with the Regional Air Quality Council (RAQC), the Regional Air Quality Monitoring and Messaging Group (RAMM), and the Sustainability Commission of the Jefferson County Board of Commissioners. The RAQC is the lead air quality planning agency in the Front Range and focuses on planning and strategy development to reduce emissions and meet air quality standards. The RAMM is a statewide, collaborative air pollution monitoring and messaging group consisting of governmental agencies, scientists, research institutions, and community-based organizations. Finally, the Sustainability Commission of the Jefferson County Board of County Commissioners exists to identify and articulate sustainability goals, objectives and voluntary targets for county government and industrial, commercial, residential and recreational sectors countywide. The air quality data collected by this project will assist in the development of the Commission's countywide Climate Action Plan, a new initiative created to address greenhouse gas emissions and help the community adapt to the effects of climate change.

Following monitoring equipment installation, the JCPH Project Team and Project Partners will receive training on the Love My Air dashboard from the subcontractor and licensor. Host site representatives will be assigned individually designed dashboards unique to their site. The web-based dashboards display rolling 30-minute averages and include corresponding health behavior recommendations based on the real-time Air Quality Index (AQI) measurement. (See Figure 1, LMA Data Dashboard Example).

love my air

Bruce Randolph M&H

6.92 (PM2.5)

30 micrograms (µg) per cubic meter (m³)

Last 24 hours' PM2.5 avg.

Current Alert Level for Fine Particulates is:

Low

Suggested Action:

Enjoy your outdoor activities!

LOW **MOD** **HAZ** **UNL** **EXC** **EXT**

AirActions 6-12 curriculum, 3-D teaching models, posters, comics and coloring pages. All tools are available in English and Spanish. In addition to existing programming, the Project Team looks to design new programming specific to Jefferson County partners based on their needs and vision for the program. The Project Team has included a GIS Analyst, Senior Environmental Health Specialist, and Community Engagement Coordinator to facilitate these designs, the understanding of data collected at each site, and the engagement with students or constituents through outreach and education activities.

For the purpose of building a network of community members and local government personnel that are passionate about improving the health and air quality of their communities, JCPH will support Project Partners throughout the project period through several media. Quarterly Host Site Committee meetings will allow for open collaboration between JCPH and Project Partners. JCPH will distribute quarterly newsletters on the County website and through social media - highlighting success stories, project updates, and other new developments. Aggregated data will be shared with Project Partners, community monitoring advisory groups, the Jefferson County Sustainability Commission, and other internal JCPH teams that assess and report on public health. Once per year, the Project Team will provide a public training or educational presentation on topics chosen by Project Partners - such as the of health effects of air pollution, local air pollution mitigation and reduction strategies, or strategies to advocate for environmental justice. Finally, the JCPH Project Team and the Host Site Committee will create a project sustainability plan to ensure Jefferson County can maintain its access to current and local air pollution information following the 3-year project period.

B. Project Significance

The targeted pollutant of concern is fine particulate matter (PM_{2.5}), described by experts as the type of air pollution with the greatest impact on human health.¹ Atmospheric particulate matter consists of microscopic solid or liquid particles suspended in the air. These particles, which are less than 2.5µm in aerodynamic diameter, can penetrate deeply into the alveoli of the lungs and are detrimental to health through both acute and chronic exposures. Evidence suggests that 13% of the global incidence of asthma in children could be attributable to particulate matter, and that PM_{2.5} air pollution has a negative impact on asthma outcomes in both adult and pediatric populations.² According to the World Health Organization, “The literature shows PM causes worsening respiratory symptoms, more frequent medication use, decreased lung function, recurrent health care utilization, and increased mortality.”³ Chronic exposure reduces lung function growth in children and increases the likelihood of premature death by those with chronic lung and heart disease.⁴ The data demonstrating the negative effect of PM_{2.5} on the cardiovascular system is also well established. According to the World Health Organization, “Populations subjected to long-term exposure to PM have a significantly higher cardiovascular incident and mortality rate. Short-term acute exposures subtly increase the rate of cardiovascular events within days of a pollution spike.”⁵

Rising temperatures, increased drought, longer fire seasons, and explosive population growth along the Front Range of the Rocky Mountains have had a significant impact on the air quality in Colorado. Jefferson County's recently updated Hazard Mitigation Plan identified that one of the region's most frequent and devastating hazards is wildfires, which are expected to become more frequent and severe due to rising temperatures.⁶ According to the Colorado Division of Fire Prevention & Control, 15 of the top 20 largest wildfires in State history have occurred in the last 9 years.⁷ This past summer, Colorado experienced the three largest wildfires in the state's history, while Denver “...held the disreputable title of worst air quality in the world, beating out other hazy metropolises like Kabul, Delhi, and Beijing.”⁸ The main pollutant emitted from wildfire smoke, PM_{2.5}, represents approximately 90% of its total particle mass.⁹ Explosive population growth in Jefferson County was double the national average at 14.8% over the last decade according to 2020 census data – causing rapid growth in industry and transportation demand which are additional primary sources of ambient particle pollution.

Jefferson County, one of the ten counties that make up the Denver Metro Region, and the fifth largest in Colorado, has a geography that makes it uniquely susceptible to temperature inversions. During these weather events, warm air rises and traps cooler air near the ground - preventing pollutants from rising into the atmosphere and dispersing out of the

¹ Tiotiu, A. I., Novakova, P., Nedeva, D., Chong-Neto, H. J., Novakova, S., Steiropoulos, P., & Kowal, K. (2020). Impact of Air Pollution on Asthma Outcomes. *International journal of environmental research and public health*, 17(17), 6212. <https://doi.org/10.3390/ijerph17176212>

² Ibid

³ Anderson, J. O., Thundiyil, J. G., & Stolbach, A. (2012). Clearing the air: a review of the effects of particulate matter air pollution on human health. *Journal of medical toxicology : official journal of the American College of Medical Toxicology*, 8(2), 166–175. <https://doi.org/10.1007/s13181-011-0203-1>

⁴ Ibid

⁵ Ibid

⁶ [Climate Action Plan | Jefferson County, CO \(jeffco.us\)](https://climateactionplan.jeffco.us)

⁷ <https://dfpc.colorado.gov/wildfire-information-center/historical-wildfire-information>

⁸ <https://www.healthyairandwatercolorado.com/a-health-crisis-colorado-s-air-quality>

⁹ <https://www.epa.gov/wildfire-smoke-course/why-wildfire-smoke-health-concern>

area. This stagnated air results in regional residents experiencing prolonged durations of exposure to the pollutants trapped in their respirable zone.

Despite the “perfect storm” of rapid population growth, climate-change driven increase in wildfires and increased vulnerability due to geography, Colorado has no public facing monitoring equipment outfitted with PM2.5 sensors deployed in Jefferson County. According to the CDPHE, statewide, Colorado's air quality is monitored by 44 stations, measuring a range of analytes including- including Carbon Monoxide (CO), Nitrogen Dioxide (NO2), Ozone (O3), Particulate Matter (PM), and Sulfur Dioxide (SO2). Of these, only about half have the capability of measuring particulate matter, and none are located in Jefferson County.

In order to identify affected communities and organizations with whom to partner, the Project Team used the CDPHE's Climate Equity Data Viewer as its primary tool. The public viewer was renovated by the JCPH GIS Analyst to highlight census block groups in Jefferson County which met the EPA definition for underserved communities (referred to herein as the Project GIS). Specifically, census block groups which contained 40% or more of its population to be people of color and/or live below 200% of the federal poverty level were compared against locations of organizations that interact with community members. Additional census metrics added to the Project GIS included the percentile of age-adjusted asthma hospitalizations, percent over 64 years of age and under 5 years of age, and COVID-19 cases, hospitalizations, and deaths per 1,000. Major roadways were mapped to understand proximity to mobile sources of air pollution.

It is well established that members of underserved communities are exposed to disproportionately high levels of air pollution. A 2016 study conducted by contributing authors from Harvard and Ben Gurion Universities observed that a higher percentage increase in mortality was associated with PM2.5 in census tracts with more people of color, lower home value, or lower median income.¹⁰ Furthermore, a 2020 Harvard study on fine particulate matter and COVID-19 mortality in the United States concluded that a small increase in long-term exposure to PM2.5 leads to a large increase in the COVID-19 death rate¹¹, adding a new variable to the disproportionate health impacts of air pollution.

Section 2: Community Involvement

A. Community Partnerships

The Jefferson County Love My Air Project is built upon partnerships with governmental agencies and advisory groups, companies with air quality monitoring technical expertise, and most importantly, with community based and community serving organizations located within or adjacent to underserved communities in Jefferson County.

Community partnerships: The goal of providing host sites with the tools, knowledge, and data to address air quality concerns will be achieved at the grass-roots level because Project Partners are part of the communities they serve. In its review of prospective monitoring sites, The Project Team considered many types of entities, such as schools, libraries, sustainable neighborhoods, community centers, and other community-based organizations. After a list of preliminary organizations was developed, it was refined based on the extent to which each site met the EPA criteria of an underserved community. Considerations were also made for prospective partners with whom established relationships exist – specifically those built through existing County programming. An effort was also made to consider spatial distribution across the County.

To date, seven organizations have been identified as preliminary Project Partners. JCPH will work with these partners to identify three additional partners after the project begins. Within the basic parameters of the project scope set by the EPA and JCPH, the specifics of the project were approved by the communities it serves. While the Project Team is at varying stages of obtaining formal commitments from partners, the preliminary partner list includes:

¹⁰ Yan Wang, Itai Kloog, Brent A. Coull, Anna Kosheleva, Antonella Zanobetti, and Joel D. Schwartz, 2016, Estimating Causal Effects of Long-Term PM2.5 Exposure on Mortality in New Jersey, Volume 124, Issue 8, Pages 1121-A150, <https://ehp.niehs.nih.gov/toc/ehp/2016/124/8>

¹¹ Wu, X., Nethery, R. C., Sabath, M. B., Braun, D. and Dominici, F., 2020. Air pollution and COVID-19 mortality in the United States: Strengths and limitations of an ecological regression analysis. *Science advances*, 6(45), p.eabd4049

1. *Jefferson County Public Schools (JPS)* – JCPH has a history of strong partnerships with JPS through prevention programming and joint responses to critical public health concerns over the years. Current partnerships include Tobacco Prevention Programming and the Jefferson County Communities that Care Coalition (CTC). The head of JPS Student Engagement is a co-chair for the coalition, a strong and active Drug Free Communities-funded program managed by JCPH. The County Director of Health Promotion and Lifestyle Management sits on the JPS District Health Advisory Council. JPS works closely with JCPH to administer the Healthy Kids Colorado survey. The trusting relationship has allowed for close partnering during the pandemic response. The LMA partnership will improve health outcomes at schools, increase students' readiness to learn, and give them tools for experiential environmental education that supports thriving schools and communities. Representatives from the District Office and individual schools participated in the planning meetings and are enthusiastic about the project (*See Attachment A – Partnership Letters*). They are currently in the process of pursuing a formal commitment to host monitoring equipment from top leadership. The schools include Jefferson Jr./Sr. High School, Columbine High School, Dunstan Middle School, and Shelton Elementary School.

2. *Jefferson County Public Libraries (JCPL)* – JCPL helps to build an educated and vibrant community by providing equal access to information and opportunities. By reaching learners of all ages, a partnership with JCPL extends the reach of the JCLMA Initiative. The history of the strong partnership between JCPH and JCPL is demonstrated through the distribution of public health information by JCPL over the past 20 years. Library lobbies have served as distribution points for timely written public health messaging. Throughout the pandemic, JCPH worked closely with the library system to reach persons experiencing homelessness for vaccine distribution. JCPL also has high level leadership representation on the JCPH CTC Coalition. Representatives from Standley Lake Library participated in one of the planning meetings and expressed interest in the project. (*See Attachment A – Letters of Support and Commitment*). They intend to formally seek permission from their leadership and Board of Trustees if funding is awarded.

3. *The Edgewater Collective (EC)* – The Edgewater Collective is a community-led effort to create thriving neighborhoods, schools and businesses through partnerships. JCPH has partnered with the EC to co-host the Food Bank of the Rockies to distribute timely health information and fresh produce to community members. The EC is instrumental in engaging community members in the political process and has paved the way for community members to weigh in on local issues, especially with outreach and engagement efforts with the Spanish-speaking community. The Executive Director of the EC participated in one of the planning meetings. The Collective is enthusiastic about LMA and intends to serve as a host site partner should the project be funded (*See Attachment A – Partnership Letters*).

4. *Lakewood Sustainable Neighborhood Program (LSNP)* – The LSNP gives Lakewood residents the opportunity to become active partners in making Lakewood a vibrant and sustainable community. Participating neighborhoods use guidance from city staff to organize workshops, projects and events that enhance the livability of their neighborhood and reduce residents' ecological footprint. Sustainable Eiber is one of the most active neighborhoods in the program and has been certified as an Outstanding Sustainable Neighborhood by the network eight times since its inception in 2012. The neighborhood's Co-Leaders participated in one of the planning meetings and have stated their support for the program. They intend to obtain a formal commitment from their steering committee and engage in the process of choosing the monitoring location in the Eiber neighborhood if funding is awarded (*See Attachment A: Letters of Support and Commitment*).

Cross Governmental Partners: JCPH will maximize the program's benefits by ensuring that air quality data is publicly shared with communities and organizations across the Front Range. JCPH commits to sharing the aggregated air quality data and programming resources with two local air quality workgroups through the ongoing participation of the Project Manager. The Regional Air Monitoring and Messaging Group (RAMM) and the Regional Air Quality Council (RAQC) are both collaborative Front Range air quality advisory groups. Collaborating with the RAMM will strengthen the air quality messaging of the Jefferson County network. Collaboration with the RAQC will provide a format for a valuable exchange of information and strategies to reach underserved communities. The Sustainability Commission for Jefferson County, a commission of the Jefferson County Board of County Commissioners, is a strong supporter of this project. Data collected through this program will contribute to the Commission's development of the county Climate Action Plan – a new initiative to address greenhouse gas emissions and assist communities in adapting to the effects of climate change. Project data will also be freely shared with the Colorado Department of Public Health and Environment (CDPHE), who has offered their technical support for this project (*See Attachment A, Partnership Letters*).

Technical Expert Partners: In its search for ideal, qualified subcontractor partners to support the procurement and calibration of monitoring equipment and the integration into the public facing network of Love My Air dashboards, the Project Team sought bids from companies which are currently supporting the existing Love My Air network and those who are not. Special consideration was made to identify small and minority-owned businesses. JCPH complied with the Contracts and Subawards clause of the “EPA Solicitation Clauses” document. The size of the contract would be less than \$100,000, which is below the threshold requiring a formal competition. Nonetheless, preliminary bids were solicited through an open, competitive, written request for proposal and were compared systematically based on value, performance history, and expertise of the contractor. The contractors selected include:

- A. *Sensible IOT, LLC* - Sensible IOT is a leading environmental solutions company focused on supporting commercial and government organizations. Founded in 2018, Sensible offers integrated services and data analytics that has helped private and public sector clients visualize, calibrate and interact with data to develop meaningful environmental insights. They have been successful in working with various public-private partnerships, such as the City of Denver’s Love My Air initiative and they have developed several cutting-edge environmental solutions for their clients. The application of technology and software to the environmental industry is core to their strategy. Sensible IOT was recently purchased by Montrose Environmental Group, Inc in August 2021.
- B. *Clarity Movement Company* - Clarity Movement “transforms how cities, governments, and businesses understand and respond to air pollution with next-generation, IoT-based air quality monitoring technology.” Clarity’s turn-key air monitoring solution, “Sensing-As-A-Service,” provides real-time, hyper-local air quality data that supplements existing regulatory monitors with networks of hundreds to thousands of continuously-calibrated air quality sensors. Clarity’s solutions make air quality management more accessible, cost-effective, and actionable than ever before. The quality of monitoring equipment provided by Clarity is well demonstrated by its use in the DDPHE and TCHD Love My Air monitoring networks.

B. Community Engagement

With the aim of including Project Partner input in the program design, the project team took great care in identifying prospective partners in underserved communities and understanding their needs and concerns surrounding air quality. After the prospective partner list was created using the process described in section 1.B., the Project Team gathered interest in the LMA program from prospective partners through written and interactive forums. Prospective partners were prompted to share thoughts and concerns on air quality and its effects through an electronic survey. The Team also held two public facing virtual meetings of identical content surrounding programmatic design in order to engage with prospective partners on outreach strategies that would be effective for their communities. The meetings included informational and interactive sections to facilitate discussion about air quality programs that would be valuable to the community. Participants were prompted about the behavior outcomes they might expect with access to real-time air monitoring data. The majority of respondents reported that this access would likely result in behavior changes to protect health and reduce pollution. When participants were prompted to select programming tools that would be effective in their communities, they reported that social media campaigns and newsletters are most effective in their target communities. Overall, eleven participants from four schools, the school District, Jefferson County Public Library, and two neighborhood organizations were represented. It is clear through the attached partnership letters (*Attachment A*) that these efforts provided an opportunity for community members to directly assist in the design of the project. As described in the Colorado Health Assessment and Planning System (CHAPS) Community Engagement Spectrum¹², engaging partner communities at the planning stage of the project creates true partnership-level involvement, where community members share power and responsibility making decisions together.

The project design includes ongoing partner involvement in decision making and planning throughout the life of the project through the formation of the Host Site Committee. In addition to providing a space to share information and ideas, the Host Site Committee will serve as an Advisory Committee to the project, discussing and voting on critical project decisions. JCPH will convene the committee immediately upon notification of an award to begin communicating and collaborating with Project Partners. The Project Team will seek feedback from Project Partners through an annual

¹² <https://cdphe-lpha.colorado.gov/chaps-phases>

satisfaction survey process that will focus on partners' perception of inclusion. Negative responses will cultivate improvements to processes to ensure equitable and strategies that create authentic community engagement.

Section 3: Environmental Justice and Underserved Communities

It is well established that underserved communities in Jefferson County are disproportionately impacted by the effects of air pollution. The Colorado Legislature recognized the reality of environmental inequities caused by environmental racism by passing the Environmental Justice Act (House Bill 21-1266) in July 2021. Colorado's definition of Disproportionately Impacted (DI) Communities closely aligns with the EPA definition for underserved communities, including census block groups with one of 3 demographic factors: more than 40% low-income households; more than 40% people of color households; more than 40% housing cost-burdened households.

Further, underserved communities include communities with a history of environmental racism perpetuated through exclusionary laws, including redlining, and communities where multiple factors (socioeconomic stressors, disproportionate environmental burdens, lack of public participation) cumulatively contribute to persistent public health and environmental disparities. Of note in Jefferson County, underserved communities experience high asthma rates compared to the rest of the state. For example, the asthma rate in the census block location for Jefferson Jr./Sr. High School are higher than 80% of the state, and the asthma rate in the census block bordering the Edgewater Collective is higher than 79% of the state. While COVID-19 case rates were fairly consistent throughout the region, COVID-19 outcomes in the census blocks in and near target communities were much worse. One census block group bordering Jefferson Jr./Sr. High School experienced hospitalization rates of 25 per 1,000 and death rates of 17 per 1,000, compared to single digit per 1,000 hospitalization rates and less than 1 per 1,000 death rates in more affluent communities with predominately Caucasian populations.

Section 4: Environmental Results – Outputs, Outcomes and Performance Measures

A. Expected Project Outputs and Outcomes

The outcomes of this project align directly with the EPA's Draft Fiscal Year 2022-2026 Strategic Plan, Goal 4: Ensure clean and healthy air for all communities. Furthermore, the project supports EPA's Objective 4.1: Improve Air Quality and Reduce Localized Pollution and Health Impacts." Project Partners will be notified upon award notification, so that collaboration can begin right away. The Project Manager will set up a Team in Microsoft Teams so there is a centralized location for information and resources, a chat function, and a shared calendar. An initial meeting will take place to reintroduce the LMA Program and to obtain input for bringing on three additional project partners. Memoranda of Understanding will be entered into with each host site to delineate roles and responsibilities. DDPHE will be notified so that the process can begin to sign a License for Trademark Use agreement. The Project Manager will reach out to the contractors that were preliminarily identified to ensure their continued ability to contract, and the sub-contracting process will begin. Initial training for the JCPH project team and the host sites will ensure that all participants have the information and tools needed to roll out the program. Each site will use tools that are relevant and meaningful for their students, patrons or residents. The Project Manager will support each site as needed ensuring partners experience success with their program. Quarterly e-newsletters will provide host sites and other interested parties with program updates and success stories. Quarterly host site committee meetings will allow the Jefferson County LMA host site representatives to share ideas and will provide a space for the representatives to make larger project decisions.

The air quality data obtained from the Love My Air program will be aggregated and analyzed by the Project Manager and the GIS Analyst. Findings will be shared back with the host sites on a quarterly basis. This data will also be shared with the RAQC and RAMM community monitoring advisory groups, in addition to the Jefferson County Sustainability Commission for purposes of supporting the air quality portion of the County Climate Action Plan. Finally, the data will be made available internally for other JCPH programs or projects that assess or plan for community level health. In the last year of the project, the Project Team will identify a plan to sustain the project after the funding period ends. There are multiple opportunities to expand the size and scope of the project, such as including adding monitors to additional sites to further expand the network into unincorporated areas of the County or renovating monitors with Ozone sensors to better understand the scope of Jefferson County's nonattainment of the EPA 8-Hour Ozone standards.

B. Performance Measures and Plan

Table 1 identifies expected outputs, outcomes and performance measures for the JCLMA Initiative. This Table will be used internally to track project activities and outcomes and will be the basis of reporting progress to the EPA.

Table 1: JCLMA Outputs, Outcomes and Performance Measures

Project Goal		To empower people in Jefferson County communities that are disproportionately impacted by air pollution to understand and respond to their local air quality with immediate, hyper-local air quality information and outreach tools.			
Objective 1		By the end of Year One, install 10 air quality monitors outfitted with particulate matter sensors at locations within or near disproportionately impacted communities in Jefferson County, CO.			
TASKS	OUTPUT	BY WHOM	OUTCOME	OUTCOME MEASUREMENT	DEADLINER
A	Inform Host Site Partners of award/initial meeting	Project Manager (PM)	Host sites will be aware the project is funded and be engaged in communication	Emails	11/30/2022
B	Enter into License for Trademark Use Agreement	PM, DDPHE	Jefferson County LMA will be authorized to replicate Denver's LMA Program	Signed Agreement	11/30/2022
C	Identify three additional host site partners	Project Team (PT), Host Sites	10 host site organizations will be identified	Final host site List Signed MOU's	12/31/2022
D	Identify Contractors and execute subcontracts	PM, Supervisor, Contracts Staff	Ideal contractors selected and contracts executed	Executed Contracts	1/31/2023
E	Participate in LMA Introductory Training	PT, Host Sites, DDPHE	Project team members and host sites will be knowledgeable about the LMA Program	Training Agenda and sign-in sheet	2/28/2023
F	Install monitoring equipment, data interface	PM, contractors	Host sites and project team will begin receiving air quality information	Equipment, invoices, LMA tracking tool	2/28/2023
G	Engage in outreach and education activities	Host Sites	Community to gain knowledge about local air quality and health behavior changes	LMA Tracking Tool	Ongoing, starting 3/1/2023
H	Provide TA, guidance, newsletters to host sites	PM, HET, Host Sites	Host sites will be engaged and supported in LMA	LMA Tracking Tool, newsletters	ongoing
I	Report activities and data to RAMM and RAQC	PM	Members of RAMM and RAQC will receive new Jeffco specific air quality data	Meeting agendas, sign-in sheets & minutes	Quarterly starting 3/31/23
J	Create and distribute quarterly data summaries	GIS Analyst	Project Team, host sites, and advisory groups will learn local air quality trends	E-reports emailed and posted	Quarterly starting 3/31/2023
K	Facilitate quarterly host site committee meetings	PM, HET, Host Sites	Host sites will have a format through which to share ideas and guide the project	Meeting agendas, sign-in sheets & minutes	Quarterly starting 3/31/2023
L	Provide ongoing equipment and data interface maintenance	PM, Contractor	The air quality monitoring equipment will be properly maintained and in working order	LMA tracking tool	Ongoing
Objective 2		By the end of Year One, implement inclusive programming that educates project partners and the communities they serve about local PM2.5 air pollution, how to protect health against its effects, and how to reduce PM2.5 air pollution.			
A	Support LMA programming at 10 host sites	PM	Staff, students, patrons and residents will learn about air quality in their local communities and its implications	LMA tracking tool; LMA Surveys	Ongoing
B	Create and distribute quarterly data summaries to project partners	GIS Analyst	JCPH Project Team, host sites, and industry workgroup members will be aware of local air quality trends on a quarterly basis	Quarterly data distributed electronically via website or email	Quarterly starting 3/31/2023
C	Create and distribute Host Site partner satisfaction surveys	PM	Host Site partners will provide feedback to JCPH regarding project inclusiveness and effectiveness	Aggregated survey responses	Annually, starting 10/31/2023
D	Provide annual community-wide trainings on topics determined by Host Site Committee	PM, HET, Host Site Committee	Annual trainings will increase knowledge of community members on air pollution impacts, ways to reduce air pollution, and environmental justice	Training materials and sign-in sheets	3/31/2023 3/31/2024 3/31/2025
Objective 3		Share new Jefferson County air quality data with project partners and key stakeholders			
A	Report on project at RAMM and RAQC meetings	PM	Other air quality monitoring organizations in the Denver Metro region will be aware of project and data	Meeting agenda, sign-in sheet, and minutes	Quarterly starting 3/31/23
B	Share aggregated data with the Jefferson County Sustainability Commission	PM	The Commission will have current air quality data for Jefferson County development of the Climate Action Plan	Documentation of shared data	Annually, 10/31/23, 10/31/24, 10/31/25

C	Seek out opportunities to contribute data to existing efforts within JCPH, the County and State	Project Team	Current and local Jefferson County air quality information will be available for larger public health assessments and plans	Documentation of shared data	Ongoing, starting 3/31/2023
Objective 4 By the end of Year Three, create a continuity plan for project continuation after Year Three					
A	Identify ongoing funding opportunities to allow project to continue after three years	PT, HET, Host Host Sites, Advisory Groups	Team will know options for funding	Written plan included in final report	11/1/2024-10/31/2025
B	Seek ongoing funding opportunities	Project Team	Grant applications or other written evidence of attempts to secure on going funding	Copies of funding applications	11/1/2024-10/31/2025
Objective 5 Meet funder reporting requirements					
A	Write and submit progress reports as requested by the funder	PM, GIS Analyst	Funder will be aware of the project activities and outcomes	A written report as requested by the funder	Per funder request

C. Timeline and Milestones

The following timeline (*Table 3: Project Timeline/Milestone Schedule*) highlights the planned completion periods for each major task associated with the project. The timeline will be used internally to ensure timely completion of activities.

Table 2: Project Timeline/Milestone Schedule

TASK	2022	2023				2024				2025		
	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
Sign License For Trademark Use Agreement for LMA with DDPHE												
Identify three additional host site partners												
Execute MOU's with host site partners												
Execute sub-contracts for equipment lease and data interface												
Oversee Installation of equipment and publishment of data dashboards												
Train JCPH team & host sites on equipment use, dashboard use and toolkits												
Host Sites to display data and engage in chosen education/outreach activities												
Aggregate and analyze air quality data												
Distribute data summaries to partners and key stakeholders												
Submit Annual Reports to EPA												
Conduct Annual Host Site Community Trainings												
Create program sustainability plan												
Submit Final Report to the EPA												

Section 5: Quality Assurance Statement – See Attachment 2

Section 6: Programmatic Capability and Past Performance

A. Past Performance

Jefferson County Public Health is a nationally accredited public health agency with a long history of successful grant stewardship, including federal, state and foundation grants. The five most relevant grants we have received and performed within the last three (3) years include:

1. *Radon Outreach and Education* – Colorado Department of Public Health and Environment/Air Quality Control Division – The Environmental Health Services Division/Air Quality Control Section of JCPH has been receiving this grant for over two decades from CDPHE. The current FY 2022 grant is in the amount of \$19,747. The goal of the grant is to reduce lung cancer deaths in the State of Colorado through education, testing, and advocacy for standards. The program is consistently successful with meeting the deliverables in the Scope of Work. Since the pandemic began, a shift was made to mailing testing kits to residents, rather than having them picked up. Return rates to have kits sent to the lab have been lower due to this change, but benchmarks are still met.
2. *Drug Free Communities (DFC)* – SAMHSA (now CDC): Awarded in October 2017, the five-year DFC grant in the amount of \$125,000 per year, supports the Communities that Care Coalition, an evidence-based change process focused on youth substance misuse, violence and hopelessness. Annual re-applications were submitted that included 12-Month Action Plans. All plan benchmarks for the five years have been met. Matching funds were provided at 100%.

3. *Women, Infants and Children (WIC)* – USDA/CDPHE – JCPH has successfully managed this federal pass-through grant from the CDPHE for approximately two decades. The grant is approximately \$1,346,362.00 for the current fiscal year, on a 3-year cycle. The Scope of Work contains quantitative and qualitative goals and objectives that are consistently achieved. Internal spot checks and chart reviews are done for quality assurance.
4. *Maternal and Child Health (MCH)* – HRSA/CDPHE – This is a federal pass-through block grant that is renewed annually with the CDPHE. This year's grant is in the amount of approximately \$411,000. JCPH's MCH Program creates and adheres to evidence-based annual local action plans that promote and contribute to healthy outcomes for women and children in Jefferson County. This project consistently meets its performance measures.
5. *Regional Health Connector* – CU Anschutz Foundation - JCPH has been successfully managing this grant from the CU Anschutz Foundation since 2017. The project creates a statewide network of Health Connectors that improves health outcomes by connecting primary care providers with resources and community health planning and improvement efforts.

B. Reporting Requirements

1. *Radon Outreach and Education* – Reporting requirements for this grant include quarterly and annual reporting that includes analysis. All reports are submitted on time and are accurate. Applications for the next year are due in August, and have been regularly funded since the late 1990's.
2. *Drug Free Communities* – The Communities that Care Coordinator complies with the grant's extensive reporting requirements, including progress reports twice per year, sharing local survey data, a yearly reapplication, site visits, grant amendments, and ongoing documentation of community partnerships. All reports are timely and accurate.
3. *Women, Infants and Children* – The Manager of the Community Nutrition Program ensures timely submission of data to the national database. CDPHE performs formal site visits every 2-3 years. The USDA performs random site visits, which just occurred with a successful outcome last year.
4. *Maternal Child Health* – The Public Health Nurse Supervisor for this program ensures that consistent, timely and accurate progress reports are completed. This includes quarterly and annual reports based on the goals and objectives in the Local Action Plan.
5. *Regional Health Connector* – The Project Coordinator for the RHC grant successfully adheres to grant requirements including ongoing participation in training, monthly conference calls, and timely monthly progress reports.

C. Staff Expertise

The Air Quality Control Section of the Environmental Health Services (EHS) Division of JCPH will lead the project. The Division's mission is to promote the health of the community and protect from environmental health risks through education, collaboration, regulation and investigation. The project will also be supported by the newly formed Health Equity Team (HET). The team is committed to reducing health inequities by working with community members and leaders to assess the needs of the diverse communities in Jefferson County. By leveraging the expertise of both EHS and the HET, JCPH will ensure the project is both technically sound and effective at engaging underserved residents. (See Attachment C – Resumes of Key Personnel).

Trenton Mitchell will serve as Project Manager in his role as JCPH Senior Environmental Health Specialist. Mr. Mitchell has five years of industry experience providing environmental and project management services to government and private clients. Mr. Mitchell's experience as a Superfund Technical Assistance and Response Team (START) contractor for EPA Regions 5 and 8 will ensure a program supported with EPA funds is managed effectively. His established community relationships will provide a network of support for this community-centered program.

The Project Supervisor is Madison Pitts, Supervisor Environmental Health Services. She is a Registered Environmental Health Specialist with the National Environmental Health Association. Madison utilizes her six and a half years' experience in Environmental Health along with her Master's in Business Administration, with leadership emphasis, to oversee and coordinate personnel and programmatic tasks within the EHS division. Madison is continuously in search of innovative ways to reduce environmental health risks and positively impact the community and will provide support to the Project Team.

Luke Martin is the GIS Analyst for JCPH and this project. He has extensive experience in GIS, having worked in the satellite imagery industry for four years. He expanded his GIS knowledge and capabilities while earning his Master's in Public Health, investigating disease vector movement due to climate change, built environment infrastructure and improvements, and co-authored a published study on tick prevalence in California. Prior to his current role, he worked as an Environmental Health Specialist for 5 years and leverages this knowledge to inform his public health GIS work

The Community Engagement Coordinator, Debby Bower, will play a significant role on the project team. Ms. Bower has earned a master's degree in Development Management from the London School of Economics, with a dissertation on participatory community development. She has nurtured relationships and partnerships throughout Jefferson County for the last two years with the Jeffco CTC Coalition and recently took a new position with JCPH as the Community Engagement Coordinator for the department. Ms. Bower has experience and talent with facilitating community led initiatives. Ms. Bower's role in the project will ensure optimal and equitable community inclusion in the entire process.

Section 7: Budget

A. Budget Detail

Line Item	Amount			TOTAL Years 1-3	Calculation
Personnel	YEAR ONE	YEAR TWO	YEAR THREE		
Senior Environmental Health Specialist/PM	\$ 8,290.49	\$ 6,568.62	\$ 6,765.68	\$21,624.79	\$63,773 x 13% (Yr 1); 10% yrs 2 & 3; 3% COLA
EHS Supervisor	\$ 3,713.58	\$ 5,737.48	\$ 5,909.60	\$15,360.65	\$74,271.54 x 5%; yrs 2 & 3, 7.5%; 3% COLA
GIS Analyst	\$ 6,862.10	\$ 7,063.90	\$ 7,275.82	\$21,201.82	\$68,621 x 10%; 3% COLA
Community Eng. Coord	\$ 5,408.00	\$ 5,570.24	\$ 5,737.35	\$16,715.59	\$54,080 x 10%; 3% COLA
TOTAL PERSONNEL	\$ 24,274.17	\$ 24,940.24	\$ 25,688.44	\$74,902.85	
Fringe Benefits					
Fringe Benefits	\$ 7,523.78	\$ 7,730.23	\$ 7,962.13	\$23,216.14	30.995%
TOTAL FRINGE	\$ 7,523.78	\$ 7,730.23	\$ 7,962.13	\$23,216.14	
Travel					
Airfare	\$ 1,500.00	\$ 1,500.00		\$3,000.00	\$750/person x 2 people (high est. due to fuel price increases)
Rental Car/fuel	\$ 245.00	\$ 245.00		\$490.00	\$55/day x 4 days + 5 gallons gas x \$5.00/gallon
Parking	\$ 60.00	\$ 60.00		\$120.00	\$15/day x 4 days
Per Diem	\$ 555.00	\$ 555.00		\$1,110.00	\$74/day x 2 ppl x 3 days + \$55.50/day x 2 ppl x 2 days - 2022 GSA Rate for 22 for Los Angeles
Lodging	\$ 1,092.00	\$ 1,092.00		\$2,184.00	\$182/night x 2 people x 3 nights - 2022 GSA Los Angeles Rates
TOTAL TRAVEL	\$ 3,452.00	\$ 3,452.00		\$6,904.00	
Supplies					
Office Supplies	\$ 150.00	\$ 150.00	\$ 150.00	\$450.00	
Rack cards, infographics, posters	\$ 1,200.00	\$ 400.00	\$ 400.00	\$2,000.00	
				\$0.00	
TOTAL SUPPLIES	\$ 1,350.00	\$ 550.00	\$ 550.00	\$2,450.00	
Contractual					
Sensible IOT Set up fee for LMA Dashboard	\$ 3,000.00			\$3,000.00	\$300/school x 10 schools (one time fee)
Sensible IOT Set up fee for Airsense	\$ 2,000.00			\$2,000.00	\$2,000 (one time fee)
Monthly AirSense Subscription Fee	\$ 8,160.00	\$ 8,160.00	\$ 8,160.00	\$24,480.00	\$85/mo/site x 10 schools x 12 months x 20% discount
TOTAL CONTRACTUAL	\$ 13,160.00	\$ 8,160.00	\$ 8,160.00	\$29,480.00	
Other					
Clarity Air Sensor Monitors - Lease	\$ 12,000.00	\$ 12,000.00	\$ 12,000.00	\$36,000.00	\$1200/monitor/year x 10 monitors
Conference Reg Fees	\$ 1,300.00	\$ 1,300.00		\$2,600.00	\$650 per person x 2 people
TOTAL OTHER	\$ 13,300.00	\$ 13,300.00	\$ 12,000.00	\$38,600.00	
SUBTOTAL	\$ 63,059.95	\$ 58,132.46	\$ 54,360.58	\$175,552.98	
Indirect				\$0.00	

Indirect	\$ 18,104.51	\$ 16,689.83	\$ 15,606.92	\$50,401.26	28.71%
TOTAL INDIRECT	\$ 18,104.51	\$ 16,689.83	\$ 15,606.92	\$50,401.26	
TOTAL	81,164.46	74,822.29	69,967.50	\$225,954.25	

B. Reasonableness of Costs

- 1. Personnel** – The Project Manager, will be devoting 13% of his time in the first project year, and 10% in years two and three. More time is needed in the first year for contracting, equipment installation, initial training, and other project set-up activities. The project supervisor will devote 5% of her time to the project for supervision and oversight, and to be available to cover any of the PM's responsibilities in his absence. The Community Engagement Coordinator will devote 10% of her time throughout the project to assist with partner identification, ongoing communication and outreach, committee meeting facilitation, and assisting with coordinating annual trainings. The GIS Analyst, Luke Martin, will provide data analysis for the project, creating written communications in formats appropriate for community and government partners.
- 2. Fringe Benefits** – The fringe benefit rate for JCPH for 2022 is 30.995%. This rate covers the cost of benefits that provide for a competitive hiring process, including health, dental and vision insurance, retirement plan, workers compensation, long-term disability and short-term disability.
- 3. Travel** – Travel expenses reflect the cost of travel for the Project Manager and Team Supervisor to participate twice in the Air Sensors International (ASIC) Conference. The ASIC mission is to improve the data collected by expanding the pollutants measured as well as encouraging community involvement. The ASIC provides an environment that encourages discussion on future research and scientific, engineering, health, social and economic aspects of gaseous and particulate atmospheric pollutants. Cost estimates reflect GSA approved rates for 2022 and anticipated airfare.
- 4. Supplies** – Office supplies include paper, pens, staples, calendars, binders, and other standard office supplies. A separate line item for printed outreach materials includes rack cards and infographics for distribution, as well as framed color posters for each LMA Host Site.
- 5. Contractual** – This item reflects the Sensible IOT quote based off a competitive bid process and a written, detailed request for proposals. The AirSense set up fee includes organizational setup on the Airsense Platform, setting up unique access for JCPH, alerting, reporting, analytics, real-time network calibration and training. The Dashboard setup fee is for creation and integration of unique dashboards for 10 sites at \$300 per site. The monthly Airsense subscription fee is \$85 per site with a 20% discount for Love My Air Licensees. This cost is competitive with other quote submissions.
- 6. Other** – This line item includes the cost of leasing Airsense monitors from Clarity Movement Company. This cost reflects their quote from the same bid process as Sensible IOT. The cost to lease the equipment is \$1200/year per site for ten sites. The project team made the decision to lease instead of purchase the equipment, to reduce the chance of unforeseen repair costs. This section also includes registration fees for two people to attend two ASIC conferences (see #3).
- 7. Indirect** – JCPH has an established negotiated Indirect Rate of 28.71% with the Colorado Department of Public Health and Environment. JCPH is prepared to negotiate an indirect rate with the CDC if required.

C. Expenditure of Awarded Funds

Grants are managed fiscally by the Accounting Department of JCPH. The Sr. Accounting Supervisor, Salma Jakane, has an MBA in accounting and finance and over 5.5 years of experience managing state, private, intergovernmental, and federal grants for JCPH. Ms. Jakane reports monthly financial statements which include high level department reporting and individual program transactions. These are distributed to the Leadership for review and presented to the Board of Health. The Department monitors allowable grant expenditures and income monthly by program. Unique grant IDs are assigned to keep revenue and expenditures isolated for billing, reporting, compliance, and monitoring needs. JCPH's accounting system (Workday) also uses program and project codes to further filter transactions to accommodate tracking needs within a program. This extra layer of monitoring allows for more isolated program awareness.

The area affected by this project is Jefferson County, Colorado.

Attachment A
Partnership Letters



March 21st, 2022

Jefferson County Public Health (JCPH)
645 Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental Health Specialist

Dear Mr. Mitchell,

Please accept this Letter of Support from Clarity Movement Company for your application to the U.S. Environmental Protection Agency's Enhanced Air Quality Monitoring for Communities grant opportunity. Specifically, we support Jefferson County Public Health's proposal to License for Trademark Use Agreement for replication of the Love My Air Program. Founded in 2018, by the City and County of Denver, the Love My Air program aims to reduce air pollution and limit exposure through behavior change, advocacy, and community involvement.

At Clarity Movement we transform how cities, governments, and businesses understand and respond to air pollution with next-generation, IoT-based air quality monitoring technology. Clarity's turn-key air monitoring solutions provide real-time, hyper-local air quality data that supplements existing regulatory monitors with networks of hundreds to thousands of continuously-calibrated air quality sensors. Clarity's solutions makes air quality management more accessible, cost-effective, and actionable than ever before. To date, Clarity's air monitoring solutions are deployed in partnership with government agencies, community groups and industrial partners in over 65 countries, across six continents.

As an existing partner of the Love My Air network, Clarity's air quality Sensing-as-a-Service solution provides the users with a flexible and affordable tool to nimbly respond to air pollution hotspots. The Clarity Nodes allow users to rapidly respond to anomalous air quality events and conduct impact assessments at highly targeted locations.

In the event this opportunity is awarded, Clarity will support the design, planning and deployment of the proposed air monitoring sensor network and provide continuous support within the scope of our Sensing-as-a-Service air monitoring partnership.

Clarity is excited to partner with JCPH to address the Denver metro area's unique air quality and environmental justice challenges and provide our regional population with reliable, publicly accessible, and actionable air quality information through our technical expertise. We look forward to our work together!

Sincerely,

A handwritten signature in black ink, appearing to read 'Sean Wihera'.

Sean Wihera
VP, Business Development and Partnerships
Clarity Movement
E: sean@clarity.io
M: +1-925-876-3381

CLARITY MOVEMENT CO.
808 Gilman Street, Berkeley, CA 94710 | clarity.io



Thursday, March 24, 2022

Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental Health Specialist

Dear Mr. Mitchell,

Please accept this Letter of Support from SensibleIoT, LLC for your application to the U.S. Environmental Protection Agency's Enhanced Air Quality Monitoring for Communities grant opportunity. Specifically, we support Jefferson County Public Health's proposal to License for Trademark Use Agreement for replication of the Love My Air Program. Founded in 2018, by the City and County of Denver, the Love My Air program aims to reduce air pollution and limit exposure through behavior change, advocacy, and community involvement.

SensibleIoT is a leading environmental solutions company focused on supporting commercial and government organizations. Founded in 2018, Sensible offers integrated services and data analytics has helped private and public sector clients visualize, calibrate and interact with data to develop meaningful environmental insights. We have been successful in working with various public-private partnerships, such as the City of Denver's Love My Air initiative and have developed several cutting-edge environmental solutions for our clients. The application of technology and software to the environmental industry is core to our strategy.

As an existing partner of the Love My Air network, SensibleIoT has helped users visualize, calibrate and interact with data to develop meaningful environmental insights. Specifically, SensibleIoT's development of the web-based Love My Air dashboard provides the access to rolling 30-minute averages and corresponding health behavior recommendations based on Air Quality Index (AQI) measurements.

SensibleIoT is excited to partner with JCPH to address the Denver metro area's unique air quality and environmental justice challenges and provide our regional population with reliable, publicly accessible, and actionable air quality information through our technical expertise. We look forward to our work together.

Sincerely,

A handwritten signature in black ink, appearing to read "Charles Beach".

Charles Beach
VP of Software Solutions



DENVER
PUBLIC HEALTH &
ENVIRONMENT



Aubrey Burgess, Love My Air Program Lead
Denver Department of Public Health & Environment (DDPHE)
City & County of Denver
Colorado, USA

March 10, 2022

Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental Health Specialist

To Mr. Mitchell-

I am writing to enthusiastically encourage EPA to select the Jefferson County Public Health's (JCPH) proposal to enhance ambient air quality monitoring in Jefferson County underserved communities. As municipal neighbors we are delighted by the prospect of increased monitoring, data access, and education to support our diverse communities who work, live, and play in our region.

Denver Department of Public Health and Environment (DDPHE) commits to support JCPH's effort via a License for Trademark Use Agreement allowing JCPH the ability to replicate our Love My Air Program. Founded in 2018, by the City and County of Denver, the Love My Air program aims to reduce air pollution and limit exposure through behavior change, advocacy, and community involvement. We have created a citywide air quality monitoring network of 40 low-cost air quality sensors that provide real-time air quality data to our residents. To empower more communities, Love My Air Denver has created a replication toolkit to provide a central location for outreach, education, and public health documents needed to launch the Love My Air program. We commit to providing the toolkit, along with our technical support and guidance, to JCPH when funding is awarded.

DDPHE is excited to continue to partner with JCPH to address the Denver metro area's unique air quality and environmental justice challenges and provide our regional population with reliable, publicly accessible, and actionable air quality information. We look forward to our work together.

Sincerely,

Aubrey Burgess

March 17, 2022

Trent Mitchell
Senior Environmental Health Specialist
Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215

Dear Mr. Mitchell,

Please accept this Letter of Support from the Regional Air Quality Council for your application to the U.S. Environmental Protection Agency's *Enhanced Air Quality Monitoring for Communities* grant opportunity.

The Regional Air Quality Council (RAQC) is the lead air quality planning agency for the nine-county Denver Metro/North Front Range Ozone Nonattainment Area. First established in 1989, and most recently reauthorized through executive order by Governor Polis in 2019, the Council plays a lead role in developing strategies to improve air quality and coordinating air quality planning initiatives.

We work to improve air quality and protect Colorado's health, environment and economy through planning, policy development, program implementation and a variety of outreach and education efforts.

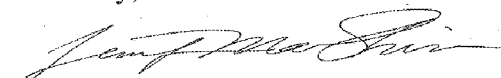
We support the goals of this project as a targeted effort to increase the availability of accurate and relevant air monitoring data to residents in Jefferson County – specifically for those in disproportionately impacted communities.

We also appreciate the goals of the project for a license of the Love My Air program, which would be used to provide real-time air quality data using low-cost, cutting-edge air pollution sensor technology – redeveloped with solar, battery storage and data connectivity for use by the entire community.

The proposed goals and objectives of the Jefferson County Love My Air initiative align with our commitment to address our region's air quality challenges, and to do so in a manner that addresses equity and environmental justice. We support the project's goal to build monitoring capacity within Jefferson County – specifically within communities that are disproportionately impacted by air pollution and climate change to monitor their own air quality, and to educate and empower community members with this knowledge.

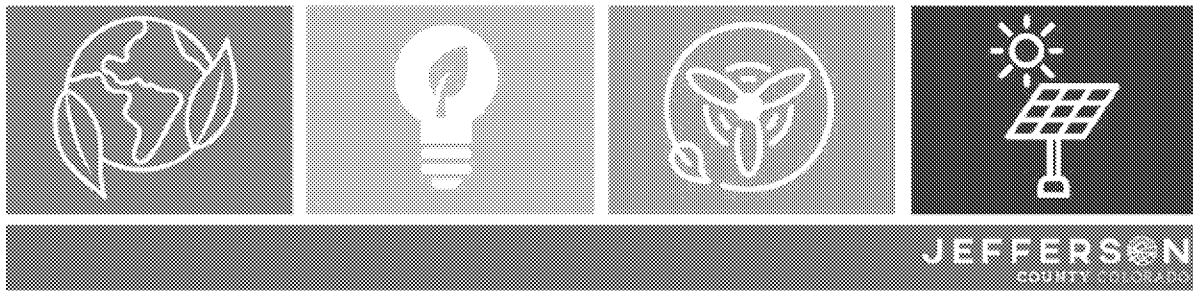
We look forward with anticipation to this project taking place within our region.

Sincerely,



Jennifer M. Shriver, MENV
Development Director

JEFFCO SUSTAINABILITY COMMISSION



March 10, 2022

Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental Health Specialist

Dear Mr. Mitchell,

Please accept this Letter of Support from the Jefferson County Sustainability Commission for Jefferson County Public Health's (JCPH) application to the U.S. Environmental Protection Agency for funding for the Jefferson County Love My Air initiative.

The Sustainability Commission was formed in 2014 in response to growing interest in sustainability within Jefferson County. Ours is one of over 30 Boards and Commissions of the Jefferson County Board of County Commissioners. Our duties include identifying and articulating sustainability goals, objectives and voluntary targets for county government and industrial, commercial, residential, and recreational sectors county-wide. This Commission led the effort for Jefferson County to adopt a formal resolution declaring climate change a critical priority to immediately address. The subsequent adoption in 2020 of the resolution by the Board of County Commissioners called for the development of the county's first *Climate Action Plan*, which is a strategic planning process and document for developing goals, policies, and programs to reduce the county's greenhouse gas emissions and adapt to the impacts of climate change. This resolution also includes a commitment to address the concerns of underrepresented and vulnerable communities in Jefferson County during the climate action planning process.

The proposed goals and objectives of the Jefferson County Love My Air Initiative align with our commitment to address climate change and to do so in a manner that addresses equity and environmental justice. We support the project's goal to build capacity within Jefferson County – specifically within communities that are disproportionately impacted by climate change - to monitor our own air quality, and to educate and empower community members with this knowledge.

We look forward with anticipation to this project taking place within our community.

Sincerely,

Kevin Morse, Chair



COLORADO
Department of Public
Health & Environment

Dedicated to protecting and improving the health and environment of the people of Colorado

21 March 2022

Trenton Mitchell
Senior Environmental Health Specialist
Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215

Dear Mr. Mitchell,

The Colorado Department of Health and Environment (CDPHE), Air Pollution Control Division (APCD), is excited to collaborate with Jefferson County Public Health (JCPH) on its application for the US Environmental Protection Agency's "Enhanced Air Quality Monitoring for Communities" grant. The partnership between CDPHE and local public health agencies like JCPH is a cornerstone of successfully protecting the health of all Coloradans. CDPHE recently adopted air quality data collection and improvements as one of its Wildly Important Goals, major objectives that will benefit all Coloradans and especially the most vulnerable members of our state.

The APCD currently has only a few air monitoring sites in Jefferson County that are designed to protect public health on a more regional basis. The proposed goals and objectives of the Jefferson County "Love My Air" initiative align with APCD's commitment to address air pollution and to do so in a manner that addresses equity and environmental justice. The APCD supports the project's goal to build monitoring capacity within Jefferson County, specifically within communities that are disproportionately impacted by the effects of air pollution to monitor their own air quality, and to educate and empower community members with this knowledge.

As part of this project, APCD will provide JCPH with technical assistance on study design, sensor selection, and placement. APCD's experience will improve the project's quality assurance, data interpretation, and development of appropriate public messaging, while this project will improve the state's understanding of air pollutants and at-risk populations in Colorado.

We look forward to joining with JCPH and other communities within Jefferson County to help make the project successful. CDPHE's mission is to protect public health and your proposal directly fits into our goal. We hope that your proposal is funded. Please feel free to contact me with any questions. I can be reached at (720) 597-2904 or michael.ogletree@state.co.us.

Sincerely,

Michael Ogletree
Division Director
Air Pollution Control Division





March 22, 2022

Jefferson
County Public
Health 645
Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental

Health Specialist Dear Mr. Mitchell,

We are writing to enthusiastically encourage the EPA to select the Jefferson County Public Health's (JCPH) proposal to enhance ambient air quality monitoring in Jefferson County underserved communities. Specifically, we support JCPH's goal of increased monitoring, data access, and education to support our diverse community who work, live, and play in Jefferson County.

Jeffco Public Schools is committed to being #BetterTogether. Through shared commitments and consistent practices that engage our staff, students, families and community, we can achieve the best possible outcomes for the students we serve. We believe in the value of family and community involvement in our schools. JPS has a long history of successfully partnering with JCPH on projects that protect and improve the health of our communities. When we all work together, we are #Better Together. The Love My Air partnership aligns with our values and mission, and we wholeheartedly support the project.

We participated in a JCPH Love My Air Project Planning meeting on March 15, 2022. During this meeting, we collaborated with Jefferson County Public Health regarding the project's goals and objectives. The project design has included meaningful involvement with the communities and organizations that the program aims to serve. The District is considering participation in Jefferson County Love My Air as a host site.

We hope to see this program become a reality through EPA funding and look forward to seeing the program empower and improve the lives our community members.

Sincerely,

Margaret Huffman, RN, MBA, ND

Director, Health Services

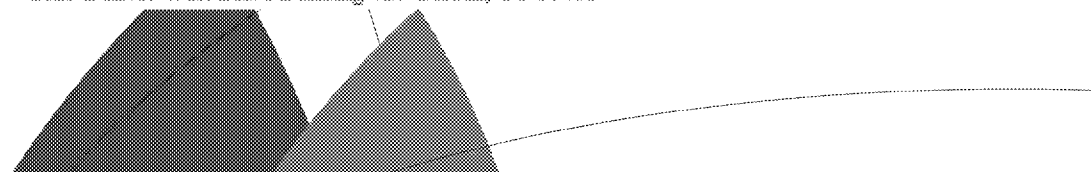
Pronouns: She, Her/ella

Margaret.Huffman@jeffco.k12.co.us

Office/Oficina: 303.982.7251

Direct/Directo: 303.982.7252

1829 Denver West Drive Building #27 Golden, CO 80401





Dunstan Middle School
1855 S Wright St
Lakewood, CO 80228
303-982-9270

March 18, 2022

Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental Health Specialist

Dear Mr. Mitchell,

Please accept this Letter of Support from Dunstan Middle School to partner with the Jefferson County Love My Air project. As a school that serves students and families who are disproportionately impacted by air pollution, we enthusiastically support this program to bring new capacity for our local community to monitor its air quality. If the project is funded, we would love to serve as partners to involve our school community in utilizing the real-time data from the new air quality monitors in the area. We aim to raise awareness of the air quality in Jefferson County and encourage actions to both protect health and reduce pollution.

There are already collaboration steps in place from this week's two JCPH Love My Air Steering Committee Project Planning meetings on March 15 and 16. We attended the meeting on March 16, in which partners started the collaboration process with Jefferson County Public Health regarding the project's goals, objectives, outputs and outcomes, and we'll be eager to join these meetings in the future. The project design has included meaningful involvement with the communities and organizations that the program aims to serve.

As members of the Jefferson County Love My Air Project Steering Committee, we are dedicated to participating in the following activities, if the project is funded:

- Take part in ongoing JCPH Love My Air Steering Committee meetings to collaborate with other Project Partners, JCPH, and other licensees of Love My Air regarding programming initiatives, troubleshooting, training, and long-term sustainability plans for the project. Serve as a host site for the monitoring equipment hardware and software;
- Acknowledge that real-time air quality data will be publicly available and may be shared with Jefferson County staff, the Colorado Department of Public Health and Environment, and the U.S. Environmental Protection Agency;
- Engage in outreach and education activities for our students, staff, and community through the use of the Love My Air replication toolkits (Engagement, Education and/or Public Health) or other programming resources.

It is our hope that participating in this program will empower our community to better understand air pollution, its sources, and how to protect health against its effects.

Sincerely,

Our mission: To provide a quality education that prepares all children for a successful future.



Edgewater Collective
PARTNERSHIPS FOR A THRIVING COMMUNITY

(303) 748-0631 joel@edgewatercollective.org 2497 Fenton Street, Edgewater, CO 80214

March 16, 2022

Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental Health Specialist

Dear Mr. Mitchell,

Please accept this Letter of Commitment and Support from Edgewater Collective to partner with the Jefferson County Love My Air project. As a nonprofit community organization that serves students, families and community members who are disproportionately impacted by air pollution, we enthusiastically support this program to bring new capacity for our local community to monitor its air quality. If the project is funded, we are committed to serving as a host site for the proposed air quality monitoring equipment and will coordinate all necessary permissions with our organization's leadership. By providing publicly available air quality data and associated action steps with community members, we aim to raise awareness of the air quality in Jefferson County and encourage actions to both protect health and reduce pollution.

We have already demonstrated our commitment to this exciting new project by participating in the JCPH Love My Air Steering Committee Project Planning meeting on March 16, 2022. During this meeting, we collaborated with Jefferson County Public Health regarding the project's goals, objectives, outputs and outcomes. The project design has included meaningful involvement with the communities and organizations that the program aims to serve.

As members of the Jefferson County Love My Air Project Steering Committee, we are dedicated to participating in the following activities, if the project is funded:

- Take part in ongoing JCPH Love My Air Steering Committee meetings to collaborate with other Project Partners, JCPH, and other licensees of Love My Air regarding programming initiatives, troubleshooting, training, and long-term sustainability plans for the project. Serve as a host site for the monitoring equipment hardware and software;
- Participate in a Love My Air host site training following monitoring equipment installation;
- Share real-time air quality data with our students, families and community members through the use of the Love My Air dashboard;

- Acknowledge that real-time air quality data will be publicly available and may be shared with Jefferson County staff, the Colorado Department of Public Health and Environment, and the U.S. Environmental Protection Agency;
- Engage in outreach and education activities for our students, families and community members through the use of the Love My Air replication toolkits (Engagement, Education and/or Public Health) or other programming resources.

It is our hope that participating in this program will empower our community to better understand air pollution, its sources, and how to protect health against its effects.

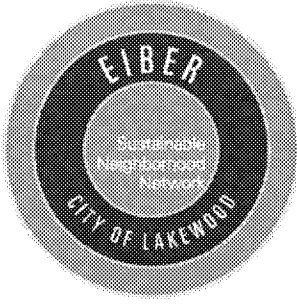
Sincerely,

A handwritten signature in black ink, appearing to read 'Joel Newton', with a stylized flourish at the end.

Joel Newton

Executive Director

Edgewater Collective



March 22, 2022

Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215
Attn: Trenton Mitchell, Senior Environmental Health Specialist

Dear Mr. Mitchell,

We are writing to enthusiastically encourage the EPA to select the Jefferson County Public Health's (JCPH) proposal to enhance ambient air quality monitoring in Jefferson County underserved communities. Specifically, we support JCPH's goal of increased monitoring, data access, and education to support our diverse community who work, live, and play in Jefferson County.

Sustainable Eiber has been part of the City of Lakewood, Colorado's Sustainable Neighborhoods Program since its inception 10 years ago. The program gives residents the opportunity to become active partners in making our city and our neighborhoods vibrant and sustainable communities. Neighborhoods participating in this unique certification program use guidance from City staff to organize workshops, projects and events that enhance the livability of their neighborhood and reduce residents' ecological footprint on the environment.

The Sustainable Neighborhoods Program focuses on five broad goal categories and associated target areas. Participating neighborhoods use these goal areas to guide their selection of workshop topics and neighborhood initiatives. The goal categories are energy, air, water, land, and people. Specifically, the goal of the "air" category is to reduce emissions generated in the neighborhood and improve both outdoor and indoor air quality.

Sustainable Eiber serves the Eiber neighborhood, a large and diverse area of our city. We hope to obtain support from our volunteer steering committee to participate in JCPH's air quality monitoring project, should it be funded.

We participated in a JCPH Love My Air Project Planning meeting on March 15, 2022. During this meeting, we collaborated with Jefferson County Public Health regarding the project's goals and objectives. The project design has included meaningful involvement with the communities and organizations that the program aims to serve.

We hope to see this program become a reality through EPA funding and look forward to seeing the program empower and improve the lives our community members.

Sincerely,

Andrea Nelson
Co-lead
Sustainable Eiber
Lakewood, Colorado

Dr. Elisabeth Moolenaar
Co-Lead
Sustainable Eiber
Lakewood, Colorado

ADMINISTRATION
10200 W. 20th Ave.
Lakewood, CO 80215
303.235.5275



Jefferson County
PUBLIC LIBRARY

jeffcolibrary.org

3-24-22

Jefferson County Public Health
645 Parfet Street
Lakewood, CO 80215

Attn: Trenton Mitchell, Senior Environmental Health Specialist

Dear Mr. Mitchell,

Please accept this letter of support from Jefferson County Public Library for Jefferson County Public Health's Love My Air project grant application. We support this project's goal to bring capacity to the Standley Lake Community to monitor its own air quality, understand the consequences of poor air quality learn options to mitigate health consequences, and share tools to take action to improve air quality in our communities. This goal aligns well with the mission of Jefferson County Public Library: to build an educated and vibrant community by providing equal access to information and opportunities. Giving Jefferson County residents direct access to local air quality information educates our residents about the realities of air pollution in our home towns. Sharing tools to respond contributes to a thriving community.

We have already participated in the JCPH Love my Air project planning meeting on March 16th, 2022. During this meeting, we collaborated with Jefferson County Public Health regarding the project's goals and objectives. The project design has included meaningful involvement with the communities and organizations that the program aims to serve.

We look forward to seeing the program empower and improve the lives of our community members.

Sincerely,

PADMA POLEPEDDI

Assistant Director of Public Services, Community Outreach | *Library Administration/Lakewood*

o: 303.275.2206 c: 720.519.3892

She/Her/Hers

Attachment B
Quality Assurance Statement

Quality Assurance Statement - Attachment

The concentrations of PM_{2.5} will be monitored at host sites using Clarity Node-S monitors, outfitted with laser light scattering technology to measure deflections of light and determine the number and size of particles in a given volume. Monitors are also equipped with solar panels, batteries, and cellular connectivity to ensure self-powered operation and efficient communication with continuous colocation analyses and public facing dashboards.

Prior to deployment, Clarity Node-S monitors undergo co-location with Federal Reference Methods (FRM) or Federal Equivalent Methods (FEM) grade reference monitors for at least one-month to determine the calibration modeling necessary to correct measurements in real time. Following deployment, Clarity dashboards provide air quality measurements, device statuses, signal strength, sensor health, and battery statuses to the user. Weekly reports are provided to the user summarizing the overall network health and guide any necessary corrective action.

Following the calibration modeling applied by Clarity, further quality assurance and quality control (QA/QC) is applied by Sensible IOT software before measurements are reported on the public facing dashboard. These include a range check on the maximum, minimum and equal values to received values, invalidation and alerts for data sticking, real-time bias corrections, aggregation into time averages, and Air Quality Index (AQI) conversions.

The data corrections made in the Love My Air program rely on forward correction: using past data to correct new data – also known as “on-the-fly” correction. On-the-fly corrections made in the Love My Air program are timespan-optimized linear regressions which use the past eight weeks of low-cost sensor PM_{2.5}, temperature, and humidity data plus a near-highway measurement variable to correct each new week of data. The approach is detailed in the 2020 study: Improving accuracy of air pollution exposure measurements: Statistical correction of a municipal low-cost airborne particulate

matter sensor network, to which the LMA Program founder and current e CDPHE Air Pollution Control Division Director, Michael Ogletree, was a contributing author.

Data collected by Clarity Node-S monitors are authenticated, stored, and backed up on a cloud server, where it is securely accessible to the user as the sole owner. Data processed and reported by Sensible IOT is also backed up daily to a database and made available to the user.

Attachment C
Resumes of Project Manager and Other Key Personnel

Professional Experience

Jefferson County Public Health

Senior Environmental Health Specialist

August 2021 - Present

- Performs stationary source inspections of Minor Sources regulated by the Colorado Department of Public Health and Environment; Enforcing Air Pollution Control Division Regulations.
- Performs inspections of CDPHE regulated sources of chlorofluorocarbons in an effort to reduce ozone depleting compound emissions and protect air quality.
- Supports and facilitates Jefferson County efforts to expand its Air Quality program into areas of Climate Change mitigation, Environmental Justice and Pollution Prevention.
- Represents Jefferson County at the regional level in coalitions developed to protect regional air quality.

Tetra Tech

Environmental Scientist

October 2018 – August 2021

- Superfund Technical Assessment & Response Team (START) contract with USEPA
 - Maintained on call readiness as both primary and secondary emergency responder. Responses have included petroleum spills, mercury spills, fires, and hazardous material releases across Regions 5 and 8.
 - Served as project manager and field support roles performing groundwater and surface water sampling, soil and sediment sampling, soil gas monitoring and sampling, air monitoring and sampling, radiation screening, Phase I and II environmental site assessments, elevation surveying and oversight of subcontractors and responsible parties.
 - Prepared health and safety plans, sampling plans and technical reports pertaining to services described above.
 - Procured services such as drilling, laboratory analysis and land surveying, managing budgets and regular reporting.
- Field Team Leader - DePue, IL
 - Managed sampling, drilling, and remediation oversight teams in the field using ArcGIS Viewers and Survey123.
 - Managed analytical data, prepared remedial design reports specific to each sampled property.
 - Managed community outreach personnel. Held regular meetings with property owners, community leaders and USEPA.
- Environmental Unit Leader – California Wildfire Responses
 - Served on site in response to the Camp (2019) and Carr (2018) wildfire debris removal operation efforts; performing commercial and residential site assessments, soil and ash sampling, and air monitoring and sampling.
 - Supported off site data management and property specific report preparation for Air Monitoring, Asbestos and Site Assessment teams in response to North Complex (2020), Camp (2019), and Carr (2018) wildfire debris removal operations.

MPS Group, Inc. - Ford Motor Company

Environmental Project Manager

June 2017 -October 2018

- Responsible for RCRA and DOT compliance for the Ford Motor Company's Chicago Assembly Plant.
- Coordinated hazardous and non-hazardous waste shipments, supported hazardous waste characterizations, and maintained waste matrices.
- Conducted weekly RCRA and monthly SPCC and SWPPP inspections to ensure plant compliance.
- Administered environmental training on RCRA compliance, spill response and Ford's Contingency Plan for Ford
- Procured and provided oversight of environmental services on behalf of Ford Motor Company, including both emergency and planned asbestos abatements, industrial cleaning, and HAZMAT surveys.
- Managed schedules and work assignments of five Environmental Technicians spanning three shifts.

Education

- Bachelor of Science in Environmental Health: Class of 2017 - Illinois State University
 - Order of Omega Honor Society: Epsilon Theta Chapter

Certifications

- START Contract Certifications
 - 40-hour HAZWOPER, Practical Level A PPE Certification, Basic Radiation Safety, First Aid, CPR, & AED.
- CTI: Resource, Conservation and Recovery Act (RCRA) - CFR Parts 261, 262, 268, 279.
- CTI: DOT Hazardous Materials Transportation – CFR Parts 172, 173, 177, 178.
- FEMA 1.0 Emergency Manager, 100: Incident Command Single Resource, 200.b: Single Resource and Initial Action Incidents, 201: Forms Used for Development of an Incident Action Plan, 700: National Incident Management Systems.

MADISON PITTS

OBJECTIVE To expand Jefferson County Public Health's Air Quality program and support their efforts to protect our air and overcome Environmental Injustices within our communities.

SKILLS & AWARDS leadership, collaboration, organizational behavior, goal setting, team player, business oriented, punctual

August 2020: Employee of the Month Jefferson County Public Health

EXPERIENCE **SUPERVISOR ENVIRONMENTAL HEALTH SERVICES, JEFFERSON COUNTY PUBLIC HEALTH**

November 2021 to Current

Responsible for performing directing programs, inspections, and investigations to determine compliance with environmental health laws and regulations. Assigns, directs, supervises, and participates in the activities of the professional and administrative support staff of the Jefferson County Public Health (JCPH) Environmental Health Services Division (EHS). Trains subordinates, assists in, or performs more complex compliance investigations and negotiations with property owners and operators. Makes presentations to the Board of Health. Review, develop and implement policies and procedures, as necessary, to improve inspection program efficiency and effectiveness. Represents the division on professional boards, committees, working groups. Leads environmental health-related initiatives both internal and external to JCPH.

ENVIRONMENTAL HEALTH SPECIALIST SENIOR, JEFFERSON COUNTY PUBLIC HEALTH

March 2019 to November 2021

Responsible for protecting the public health and environment on behalf of Jefferson County Public Health. Provide leadership within affiliated programs. Coordinate and perform inspections and investigations in one or more environmental health programs ensuring the adherence to environmental health laws and regulations. Provide support in the public health response to environmental health emergencies. Prepare reports of inspection findings and recommendations, and initiate enforcement actions as necessary. Respond to, and answer inquiries about

environmental health issues from the public. Assist and advise other team members. Manage programs and activities that include auditing, tracking time, expenses and revenue for those programs in order to promote continual improvement, assure quality of work completed and adherence to program contracts and agreements. Coordinate activities of a field work compliance team. Serve as a member of committees and panels.

ENVIRONMENTAL HEALTH SPECIALIST, JEFFERSON COUNTY PUBLIC HEALTH

August 2018 to March 2019

Responsible for protecting the public health and environment on behalf of Jefferson County Public Health. Coordinate and perform inspections and investigations in one or more environmental health programs ensuring the adherence to environmental health laws and regulations. Provide support in the public health response to environmental health emergencies. Prepare reports of inspection findings and recommendations, and initiate enforcement actions as necessary. Respond to, and answer inquiries about environmental health issues from the general public. Assist and advise other team members. Manage programs and activities that include auditing, tracking time, expenses and revenue for those programs in order to promote continual improvement, assure quality of work completed and adherence to program contracts and agreements. Coordinate activities of a field work compliance team. Serve as a member of committees and panels.

SANITARIAN/ LC-13 INVESTIGATOR, PEORIA CITY/ COUNTY HEALTH DEPARTMENT

August 2015 to August 2018

Perform inspections to determine compliance and overall safety sanitation on food establishments licensed through Peoria City/ County Health Department, including food carts, mobile units and temporary events. Conducts preliminary inspections prior to opening establishments, routine inspections during operations and monitors progress and compliance during periods of remodel and construction. Investigates and conducts follow up inspections with all potential food borne illnesses or sanitation complaints received. Conducts preliminary and final inspections for all new well and private wastewater systems. Conducts inspections for the sealing of wells. Investigates and conducts follow up inspections for all wastewater complaints. Conducts inspections on pumper trucks. Collects water samples. Discusses findings and provides education to food establishments, homeowners and operators of non-community private well supplies. Conducts Illinois Liquor Commission inspections. Provide trainings and ongoing education regarding Food Safety and Sanitation, Onsite Wastewater/ Water wells to co-workers.

GRADUATE ASSISTANT- BMX AND MOUNTAIN BIKE CYCLING COACH, LINDENWOOD UNIVERSITY

2014- 2015

On-site training of BMX and mountain bike disciplines, team building activities with all members of the cycling team, recruitment of prospective student-athletes, social media/marketing promotion, work with head coach to develop plans for training sessions, various administrative duties, travel coordination, provide support for athletes at events.

EDUCATION LINDENWOOD UNIVERSITY MASTER OF BUSINESS ADMINISTRATION

Graduated 2016 with an emphasis on Leadership

LINDENWOOD UNIVERSITY BACHELOR OF SCIENCE BIOLOGY

Graduated 2014

CERTIFICATIONS AND National Environmental Health Association Registered

MEMBERSHIPS Environmental Health Specialist (REHS)

Colorado Department of Public Health and Environment Odor
Intensity Rating Certification

Visible Emissions Evaluator Certification

Colorado Professional of Onsite Wastewater Certificate: Soils
Evaluator

National Environmental Health Association (NEHA) (2018 to
Current)

Colorado Professionals of Onsite Wastewater (CPOW) (2018 to
Current)

Colorado Environmental Health Association (CEHA) (2018 to
Current)

**LEADERSHIP Treasurer, Colorado Professionals of Onsite Wastewater (2018 to
2022)**

Workforce Development Committee, Jefferson County Public
Health (2020)

Ex. 6 Personal Privacy (PP)

PROFESSIONAL SUMMARY

- Skilled in combining health and epidemiologic data for analysis, changes, and solutions.
- Skilled in researching, organizing, and implementing environmentally-focused health and education projects. Trained in illness prevention interventions, and in promoting emotional and physical well-being of those in need.
- Excellent research synthesis and writing skills: have written papers on many health topics ranging from hygiene, environmental, mental, and physical health.
- Language skills: three years of high school Spanish, two years of college Spanish, and continual use in Peru for five months.
- Excellent interpersonal skills: communicating health risk information, behavioral change concepts and implementation, and teamwork.

EDUCATION

Master of Public Health (Global Health and Health Disparities)

May 2017

Colorado School of Public Health, Fort Collins, CO

Bachelor of Arts, Environmental Studies: Specialized in GIS & Spatial Analysis

May 2010

Minors: Political Science and Geography

University of Colorado, Boulder, CO

PROFESSIONAL EXPERIENCE

GIS Analyst, Jefferson County Public Health (Lakewood, CO) *December 2021-present*

Assist public health departments, programs, and projects with mapping, GIS, and geospatial needs. Use ArcGIS Pro and ArcGIS Online to create maps and host them online for internal project use as well as public display and use.

- Requires in depth understanding of a variety of public health concepts, work, and processes to properly create map products and analysis for specific projects
- Close collaboration with colleagues from a wide range of public health departments and work areas
- In depth understanding of ESRI products and their interoperability

Environmental Health Specialist, Jefferson County Public Health (Lakewood, CO) *June 2020-December 2021*

Enforce Colorado regulations of retail food establishments, childcare facilities, and conduct epidemiology investigations into childcare and restaurant outbreaks. Requires an in-depth understanding of these regulations and personal judgment in enforcing them in highly variable scenarios with the goal of minimizing risks of illness outbreaks and addressing them appropriately when they occur.

- Developed interpersonal communication and interaction skills when applying corrective action during inspection. A high level of care is paid to assessing, explaining, and correcting public health risks and the capabilities (physical and monetary) of establishments to address violations.
- Respond to and investigate illness outbreaks. NEARS trained.
- I am the lead childcare inspector for my department.
- FDA Standardized Food Inspector.

Environmental Health Specialist, San Juan Basin Public Health (Durango, CO) *November 2017-June 2020*

Enforce Colorado regulations of retail food establishments, childcare facilities, and waste tire generators through inspections. Requires an in-depth understanding of these regulations and personal judgment in enforcing them in highly variable scenarios with the goal of minimizing risks of illness outbreaks and addressing them appropriately when they occur.

- Developed interpersonal communication and interaction skills when applying corrective action during inspection. A high level of care is paid to assessing, explaining, and correcting public health risks and the capabilities (physical and monetary) of establishments to address violations.
- Gained understanding of methods and requirements to respond to a food-borne illness outbreak.

- I am the lead childcare inspector for my department.
- FDA Standardized Food Inspector.

Environmental Health Practitioner, National Environmental Health Association *August 2016-May 2017*

Developed a database of environmental health professionals from numerous local health departments across all 50 states to survey and begin improving their needs, skills, and training. Created a GIS Zika risk map for Louisiana Department of Health (LDH) using ArcGIS and ArcGIS Online.

- Gained understanding of different states' health department functionality and structure.
- Collaboration focused: worked with Baylor University, the CDC, NEHA, and LDH.
- Can easily find, edit, and combine census data with GIS data for analysis, problem solving, and display.

Graduate Research Assistant, Colorado State University (Ft. Collins, CO) *August 2016-July 2017*

Created GIS maps of tick species and tick-borne diseases distributed throughout the USA in ArcGIS using primary data. Work published in PLOS ONE. Additionally, used ecological niche modeling software to create tick distribution prediction maps for current and future climate conditions.

- Gained spatial epidemiology skills in organization and map display of health data.
- Gained skills in ecological niche modeling software (MAXENT), including data requirements, benefits, assumptions, and limitations. Can comfortably model any vector or disease.

Technical Specialist, DigitalGlobe Inc. (Longmont, CO) *July 2010-April 2014*

Provided internal and external technical support for online satellite delivery platforms and overall satellite imagery quality. Assisted with platform setup, including reporting and testing any defects discovered.

- Diverse client base: military personnel, university students, oil and gas, and scientific analysts.
- Independently worked on specific problems necessitating reference to technical documents. Solutions delivered through email, or online via Open Geospatial Consortium services; often necessitated workarounds without use of company resources.
- Maintained a software and imagery best practices database developed through personally crafted workaround solutions, team collaboration, and research.
- Tailored customer solutions to help close multi-hundred thousand dollar deals.
- Gained skills in customer service communication, imagery analysis, complex satellite collection problems, and web-based program bug testing.

PUBLISHED WORKS

Nieto NC, Porter WT, Wachara JC, Lowrey TJ, Martin L, Motyka PJ, et al. (2018) Using citizen science to describe the prevalence and distribution of tick bite and exposure to tick-borne diseases in the United States. PLoS ONE 13(7): e0199644. <https://doi.org/10.1371/journal.pone.0199644>

Debby M. Bower

JCPH Community
Engagement Coordinator

A dynamic professional committed to enhancing health equity with a proven record of quality communication, growing partnerships, and community engagement. A team-oriented, innovative leader who loves collaborating with diverse people of all ages to accomplish transformative goals. Skilled in strategic analysis, envisioning, and creative implementation that embrace challenge, empower people, and make positive change.

Contact Details

Ex. 6 Personal Privacy (PP)

Areas of Expertise

- Written and verbal communication
- Partnership building
- Community engagement
- Public speaking
- Facilitation and training
- Board and organization support
- Team building
- Program and project management
- Policy development
- Grant management

Skills & Experience

- Spanish (advanced conversational, written)
- Volunteer management
- Financial planning and budgeting
- Survey implementation
- Public relations and marketing
- Extensive computer skills and creativity

Education

- 1998 MSc Development Management**
London School of Economics (London, England)
Conducted Master's Dissertation research in colonias near Laredo, TX
- 1997 BA Political Science *magna cum laude***
Luther College (Decorah, Iowa)

Professional Experience

- Dec. 2021 - Present** **Community Engagement Coordinator**
Jefferson County Public Health – Lakewood, Colorado
- Developing the Equity, Diversity & Inclusion (EDI) Team to work with and through community members, organizational and community leaders, and government officials to understand the needs of our many Jeffco communities and work to strengthen their assets, capacities, and interests.
- Mar. 2020 - Dec. 2021** **Special Projects Coordinator - Jeffco Communities That Care (CTC) Coalition**
Jefferson County Public Health – Lakewood, Colorado
- Serve the CTC coalition of 100+ members to nurture a thriving, healthy, and safe community for teens. Create engagement opportunities for 250+ Jeffco teens annually, extend community partnerships, provide workgroup support. Manage grant tracking and report writing for 5-year Federal & State grants totaling over \$1.6 million. Facilitated the cultural and linguistic transcreation of a training into Spanish. Assisted as a Covid Case Investigator for 4 months.
- 2018 – 2020** **Project Management Lead – Making Room Initiative** *(Part Time, Contract)*
Jefferson Unitarian Church – Golden, Colorado
- Coordinated a potential move to a larger facility, including property evaluation and enhancement, a \$4 million dollar capital campaign, a comprehensive communication and marketing strategy, and creating opportunities for meaningful congregational involvement.
- 2019** **Rebranding and Marketing Consultant** *(Part Time, Contract)*
Jefferson County Housing Authority – Wheat Ridge, Colorado
- Assisted to explore rebranding and coordinate assorted marketing projects.
- 2011 – 2012** **Youth Entrepreneurship Consultant** *(Part Time, Contract)*
Adams County Education Consortium – Colorado
- Surveyed 917 high school students from five School Districts and explored how entrepreneurial training might best be enhanced. Nurtured multi-sector support for youth training opportunities.
- 2006 – 2011** *City of Thornton – Thornton, Colorado*
Recruited by City Manager and promoted rapidly to leadership positions.

Debby M. BowerJCPH Community
Engagement Coordinator**Professional Experience** (continued)**Office of Economic Development Lead** (*as Asst. to CM*) (2010 – 2011)

Provided leadership to a department in transition, forged partnerships with employers, tailored resources to assist businesses and their employees.

Assistant to the City Manager (2008 – 2010)

Ensured the quality of all information to Council. Supervised 10 staff reports, three directly and seven in the City Clerk's office. Managed annual budgets over \$2 million. Assisted Council to develop their vision and coordinated implementation of the City's first Work Plan with over 300 benchmarks.

Administrative Research (Policy) Analyst (2006 – 2008)

Nurtured community relationships and outreach activities, including the management of ~\$100,000 grant program to community organizations. Coordinated State and Federal legislative interests and special projects.

2004 – 2006 **Economic Development Specialist**

City of Commerce City, Colorado

Led the City's business retention and recruitment efforts, coordinated marketing, development and redevelopment, incentives, water policy, and small business development activities, and represented the City widely.

2002 – 2004 **TANF Contract Administrator & CHOICES Program Coordinator**

Adams County Department of Human Services – Commerce City, Colorado

Developed the CHOICES initiative, which increased household income of nearly 100 lower-income working families by \$644/month through training and resource connection. Negotiated, executed, and administered \$1.4 million in five new contracts. Provided indirect staff supervision of 12 and contract oversight for 30+ contracts totaling nearly \$6 million annually.

2000 – 2002 **London Borough of Barnet – Local Agenda 21 Officer**

London, England

Nurtured two dynamic Neighborhood Partnerships and coordinated Action Plan programs for environmental protection, economic prosperity, and community well-being (UN Declaration on Environment and Development).

1998 – 2000 **Family Resource Center Director**

Niver Creek Middle School – Thornton, Colorado

Established the Center to serve 1,000+ youth and families in need. Managed all grant applications, reporting, and management. Nurtured partnerships, developed and marketed programs, classes, and events to help enhance well-being. Assisted Spanish- and English-speaking students, parents, and families. Hired and supervised an assistant for the Center's second year.

Volunteer & Community Involvement (Selected)

2019 - 2020 **Golden United** Planning Committee member, Candidate Debate Moderator
(Marketing and outreach: created fliers and coordinated distribution with Golden schools)

2013 – 2018 **Partnership Enhancement Volunteer** *Jefferson Unitarian Church*
(Multiple roles with extensive marketing & communications, website creation, survey work)

1994 **Selected Speaker, Lincoln Memorial Museum Dedication** Washington, D.C.

1992 – 2002 **Professional, volunteer, and study-related experiences**
Venezuela, Israel, Tanzania, United Kingdom

Manifest for Grant Application # GRANT13580347

Grant Application XML file (total 1):

1. GrantApplication.xml. (size 26042 bytes)

Forms Included in Zip File(total 6):

1. Form ProjectNarrativeAttachments_1_2-V1.2.pdf (size 16041 bytes)

2. Form SF424_3_0-V3.0.pdf (size 24316 bytes)

3. Form SF424A-V1.0.pdf (size 23190 bytes)

4. Form EPA4700_4_3_0-V3.0.pdf (size 22739 bytes)

5. Form OtherNarrativeAttachments_1_2-V1.2.pdf (size 16013 bytes)

6. Form EPA_KeyContacts_2_0-V2.0.pdf (size 37416 bytes)

Attachments Included in Zip File (total 3):

1. ProjectNarrativeAttachments_1_2 ProjectNarrativeAttachments_1_2-Attachments-1234-Enhanced Air Quality Monitoring for Communities_Narrative_Final.pdf application/pdf (size 435001 bytes)

2. SF424_3_0 SF424_3_0-1236-Location Effected by Project for Project - Form 424 - #14.docx application/vnd.openxmlformats-officedocument.wordprocessingml.document (size 11991 bytes)

3. OtherNarrativeAttachments_1_2 OtherNarrativeAttachments_1_2-Attachments-1235-Final Attachments - One Document - JCPH AQM Application 3.25.22.pdf application/pdf (size 2579891 bytes)